DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-019253 Address: 333 Burma Road **Date Inspected:** 23-Nov-2010

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: Oiu Wen. **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes N/A **Delayed / Cancelled:** No

Bridge No: 34-0006 **Component:** OBG components.

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance Inspector (QA) Mr. Shailesh Wadkar was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA Inspector observed and/or found the following:

Bay 14:

OBG Seg 13E:

Notification no: 007460.

This QA inspector performed Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA Inspector generated a UT report on this date. The members are identified as OBG components. The weld designations reviewed are as follows:

- 1) AP3008-001-041 to 044.
- 2) AP3009-001-041 and 042.
- 3) AP3010-001-040 to 043.
- 4) SEG3019AQ-001 to 006.
- 5) SEG3011M-117 to 121.
- 6) SEG3011N-275, 276, 278, 279 and 280

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OBG Seg 13CW:

Notification no: 007460.

This QA inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC QC personnel. This QA Inspector generated a UT report on this date. The members are identified as OBG components. The weld designations reviewed are as follows:

1) SEG3015M-062.

This QA Inspector observed the following work in progress:

OBG Seg 14W:

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020AX-004 [Side Panel (SP) to Bottom Panel (BP), complete joint penetration (CJP) weld]. The welders are identified as 066038 and 066413 and were observed welding in the 4G position. ZPMC QC was identified as Qiu Wen. The welding variables recorded by QC appeared to comply with WPS: B-P-2213-B-U3b.

For the above mentioned weld:

- Welding of this joint was observed to be done after back gouging.
- However, ZPMC personnel did not appear to be following the New Weld Procedure (Rager / McQuaid).
- Magnetic Particle Testing (MT) was not performed before welding of this joint after back gouging.
- This QA Inspector informed about this to ZPMC QC Qiu Wen, that an Incident Report will be raised for this.
- See attached photos for further details.

OBG Seg 13AW:

During inprocess visual inspection, this QA Inspector observed crack on weld jt no: SEG3013X-PP119-338. This QA informed about this issue to ZPMC QC Qiu Wen. ZPMC agreed that they will gouge and reweld this joint with proper welding repair report (WRR). See attached photos for further details.

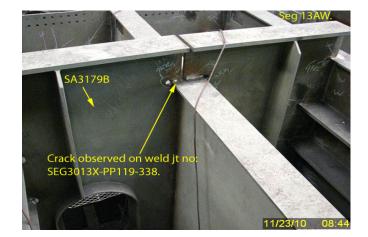
OBG Seg 13AW:

Repair welding of weld joint no: SEG3013Q-040 [Floor Beam (FB) to Longitudinal Diaphragm (LD); CJP weld at PP118]. The welder is identified as 045246 and was observed welding in the 3G position. Welding process was identified as SMAW. ZPMC QC was identified as Qiu Wen. The welding variables recorded by QC appeared to comply with WPS: 345-SMAW-3G(3F)-FCM-Repair. Repair welding was done as per WRR: B-WR 14731 Rev-0.

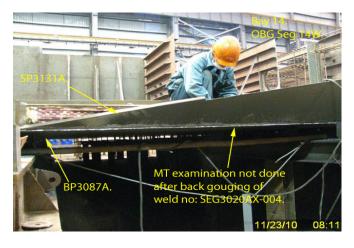
Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

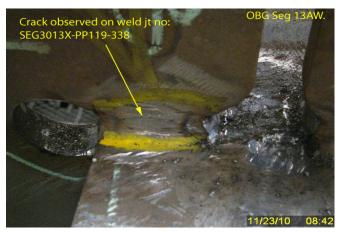
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Summary of Conversations:

No significant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang; phone: 15000422372., who represents the Office of Structural Materials for your project.

Inspected By:	Wadkar,Sailesh	Quality Assurance Inspector
Reviewed By:	Patterson,Rodney	QA Reviewer